

ENSR International

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October 3, 2001
Project No. 01123-016
Work Order No. 29.1, Document No. 34-

Mr. Alex Carlos
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013

Re:

Environmental Monitoring Report, Former Plant B-6 - Building 360 Complex, Burbank, California

Dear Mr. Carlos:

On behalf of the Burbank-Glendale-Pasadena Airport Authority (BGPAA), ENSR is pleased to present the results of subsurface sampling and analysis on the former Lockheed Plant B-6 site, Building 360 Complex. The sampling was conducted as part of the on-going environmental monitoring on the B-6 property, associated with foundation and infrastructure demolition.

Background

During the past decade, the former Lockheed Plant B-6 site was the subject of several subsurface environmental assessments and remediation activities (Figure 1 – Site Vicinity Map). The Los Angeles Regional Water Quality Control Board (LARWQCB) has been the regulatory agency responsible for oversight of these environmental issues. The LARWQCB systematically reviewed all the environmental data from the various assessments and remediation efforts, and issued "no further action" (NFA) letters for the site in 1996.

In addition to the above, in a letter dated September 21, 1998, the LARWQCB requested that surface and shallow subsurface soil monitoring be conducted during foundation and infrastructure demolition on the property. The intent of this monitoring was to document the environmental condition of the shallow soils beneath site building slabs and foundations, as they are demolished.

The BGPAA has recently completed demolition of the former Building 360 Complex superstructures and substructure slabs and foundations. The asphalt paving throughout the area remains intact. During demolition, the surface and shallow subsurface soils beneath building slabs and foundations were inspected and sampled. This report documents the results of the environmental monitoring associated with demolition of the building slabs and foundations in the Building 360 Complex.

Scope of Work

Demolition was conducted between April and September 2001. Demolition activities included the removal of remaining buildings, slabs, and foundations on the City of Los Angeles portion of the B-6



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site, commonly referred to as the Building 360 Complex and also referred to as parcels "F" and "G". During demolition activities, the soil beneath the slabs, foundation, and underground structures were inspected for the presence of contamination and/or hazardous materials. Inspection tools included visual observation, photoionization detector (PID) monitoring, and shallow soil sampling with headspace analysis.

During demolition, the soils immediately beneath the building slabs and foundations were visually observed for any evidence of discoloration, staining, odor, and/or contamination. PID readings of the ambient air were also collected during slab and foundation removal. A total of 35 shallow soil samples were collected on 100-foot centers from an average depth of 12 inches beneath the former building slabs and foundations. The location of these samples is illustrated on Figure 2 – PID Sample Locations. Headspace analysis of each sample was conducted for the presence organic vapors using a MSA Passport PID equipped with a 10.2 eV lamp.

Monitoring Results

During slab and foundation demolition, some soil coloration differences were observed. These color changes were generally associated with different backfill materials used at the time of construction. No unusual odor was indicated and PID readings of the ambient air immediately above these locations did not record a measurable presence of organic vapors.

The results of organic vapor analysis (PID readings) of the 35 shallow soil samples are summarized on Table 1 – Photoionization Detector - Organic Vapor Results. Only two sample locations recorded concentrations greater than 1.0 part-per-million (ppm). Sample location No. 3 recorded a reading of 1.8 ppm and sample location No. 4 recorded a reading of 2.0 ppm. All other samples were less than 1.0 ppm, with most locations recording a non-detected (ND) condition.

Previous Soil Vapor Results

In addition to the above recent monitoring results, ENSR has included shallow soil vapor results from previous surveys conducted in the Building 360 Complex. These data are included to provide a complete assessment picture of the environmental condition, including the areas beneath remaining asphalt pavement. The surveys were conducted by Tetra Tech in 1996 and ENSR in 1997.

A total of 180 shallow soil vapor probes are illustrated on Figure 3 – Soil Vapor Survey Locations. These soil vapor samples were generally collected at depths of 6 feet by Tetra Tech and at depths of 10 and 20 feet by ENSR. At the time of the surveys, soil vapor samples were analyzed on site for volatile organic compounds (VOC) in a mobile laboratory using EPA Method 8260. A summary of the analytical results are presented in Table 2 – Soil Vapor Analytical Results. Based on the relative absence of VOCs in the area, and for simplicity, the results are not reported as individual VOC concentrations but as a summation of VOC concentrations for each sample.



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There has not been any active plant operations in the area since the surveys were conducted, therefore, the data may be considered valid. Without considering natural attenuation, the data may actually be considered conservatively high.

The data indicate that 46 out of 180 sample locations recorded some total VOC concentration greater than ND. Of the 46 positive responses, 40 locations recorded values less than 10 ug/l total VOC. The remaining 6 locations recorded total VOC concentrations ranging from 11.5 ug/l to a high of 52.3 ug/l at sample location GSV-059 at a depth of 10 feet. The 20-foot sample at location GSV-059 recorded a total VOC concentration of 22.4 ug/l, indicating a decreased concentration with depth.

Conclusions

The PID monitoring results and the previous soil vapor survey results indicate that all soil vapor concentrations were either ND or below levels which would suggest a source of VOC in the Building 360 Complex area. None of these data suggest the need for additional assessment or remediation.

Request for Closure

Based on the above monitoring data, and on behalf of the BGPAA, ENSR requests the LARWCQB issue a closure (no further requirements) of the Los Angeles portion of the B-6 property.

If you have any questions or require further clarification regarding the report or the data presented, please contact L. David Parker in our Glendale office at 818-546-2090.

Sincerely,

CC:

L. David Parker Project Manager

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Mr. Dan Feger, BGPAA

Tom Hale

Regional Construction Manager

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TABLE 1
Photoionization Detector
Organic Vapor Results
Former Building 360 Complex

Sample Number	Sample Depth (feet	Photoionization Detector
	below ground surface)	Reading (ppm)
1	1.0	0.1
2	1.0	0.6
3	1.0	1.8
4	1.0	2.0
5	1.0	0.8
6	1.0	0.6
7	1.0	0.2
8	1.0	ND
9	1.0	ND
10	1.0	ND
11	1.0	ND
12	1,0	ND
13	1.0	ND
14	1,0	ND
15	1.0	ND
16	1.0	ND
17	1.0	0.6
18	1.0	0.6
19	1.0	ND
20	1.0	ND
21	1.0	ND
22	1.0	ND
23	1.0	ND
24	1.0	ND
25	1.0	ND
26	1.0	ND
27	1.0	ND
28	1.0	ND
29	1.0	ND
30	1.0	ND
31	1.0	ND
32	1.0	ND
33	1.0	ND
34	1.0	ND
35	1.0	ND

TABLE 2 Soil Vapor Analytical Results Former Building 360 Complex

Vapor Probe Number	Sample Depth (feet	Total Volatile Organics
	below ground surface)	· (ug/l in air)
ASG-045	6.0	ND
ASG-046	6.0	ND ND
ASG-047	6.0	ND ND
ASG-047	6.0	ND ND
ASG-049	6.0	ND ND
ASG-050	6.0	ND ND
ASG-051	6.0	
ASG-051 ASG-052		ND ND
	6.0	ND ND
ASG-053	6.0	ND
ASG-054	6.0	ND
ASG-055	6.0	2.0
ASG-056	6.0	ND
ASG-057	6.0	ND
ASG-058	6.0	ND
ASG-059	6.0	ND
ASG-060	6.0	ND
ASG-061	6.0	ND
ASG-062	6.0	ND
ASG-063	6.0	ND
ASG-064	6.0	ND
ASG-066	6.0	ND
ASG-067	6.0	ND
ASG-068	6.0	ND
ASG-069	6.0	DИ
ASG-070	6.0	ND
ASG-071	6.0	ND
ASG-072	6.0	ND
ASG-073	6.0	ND
ASG-074	6.0	ND
ASG-075	6.0	ND
ASG-076	6.0	ND
ASG-077	6.0	1,1
ASG-078	6.0	2.7
ASG-079	6.0	ND
ASG-080	6.0	ND
ASG-081	6.0	ND
ASG-082	6.0	ND
ASG-083	6.0	ND
ASG-084	6.0	ND ND
ASG-085	6.0	ND ND
ASG-086	6.0	1.2

TABLE 2 Soil Vapor Analytical Results Former Building 360 Complex

Vapor Probe Number	Sample Depth (feet	Total Volatile Organics
	below ground surface)	(ug/l in air)
ASG-087	6.0	ND
ASG-088	6.0	4.4
ASG-089	6.0	2.2
ASG-090	6.0	ND
ASG-091	6.0	ND
ASG-092	6.0	ND
ASG-093	6.0	ND
ASG-094	6.0	ND
ASG-095	6.0	ND
ASG-096	6.0	ND
ASG-097	6.0	1.2
ASG-098	6.0	1.3
ASG-099	6.0	4.5
ASG-100	6.0	2.8
ASG-101	6.0	ND
A2SG-001	6.0	1.6
A2SG-002	6.0	ND
A2SG-003	6.0	ND
A2SG-004	6.0	4.8
A2SG-005	6.0	ND
A2SG-005	18.0	2.3
A2SG-006	6.0	ND
A2SG-006	14.0	3.7
FSV-001	10,0	ND
FSV-001	20.0	ND
FSV-002	10.0	ND
FSV-002	20.0	ND
FSV-003	10.0	ND
F\$V-003	20.0	ND
FSV-004	10.0	ND
FSV-004	20.0	ND
FSV-005	10.0	ND
FSV-005	20.0	ND
FSV-006	10.0	ND
FSV-006	20.0	ND
F\$V-007	10.0	ND
FSV-007	20.0	ND
FSV-008	10.0	ND
FSV-008	20.0	ND
FSV-009	10.0	ND
FSV-009	20.0	ND

TABLE 2 Soil Vapor Analytical Results Former Building 360 Complex

Vapor Probe Number	Sample Depth (feet below ground surface)	Total Volatile Organics (ug/l in air)
FSV-010	10,0	ND
FSV-010	20.0	ND
FSV-011	10.0	ND
FSV-011	20.0	ND
FSV-012	10.0	ND
FSV-012	20.0	ND
FSV-013	10.0	ND
FSV-013	20.0	ND
FSV-014	10.0	5,6
FSV-014	20.0	5.9
GSV-001	10.0	ND
GSV-001	20.0	ND
GSV-002	10.0	ND
GSV-002	20.0	ND
GSV-003	10.0	ND
GSV-003	20.0	ND
GSV-004	10.0	ND
GSV-004	20.0	ND
GSV-005	10.0	ND
GSV-005	20.0	ND
GSV-007	10.0	1.1
GSV-007	20.0	2.9
GSV-008	10.0	ND
GSV-008	20.0	ND
GSV-009	10.0	ND
GSV-009	20.0	ND
GSV-010	10.0	ND
G\$V-010	20.0	ND
GSV-011	10.0	ND
GSV-011	20.0	ND
GSV-012	10.0	ND
GSV-012	20.0	ND
GSV-013	10.0	ND
GSV-013	20,0	ND
GSV-016	10.0	ND
GSV-016	20.0	ND
GSV-017	10,0	ND
GSV-017	20.0	3.4
GSV-018	10.0	ND
GSV-018	20.0	ND
GSV-019	10.0	ND

TABLE 2 Soil Vapor Analytical Results Former Building 360 Complex

Vapor Probe Number	Sample Depth (feet below ground surface)	Total Volatile Organics (ug/l in air)
GSV-019	20.0	ND
GSV-021	10.0	ND
GSV-021	20.0	ND
GSV-025	10.0	4.7
GSV-025	20.0	8.7
GSV-026	10.0	1.1
GSV-026	20.0	4.4
GSV-027	10.0	ND
G\$V-027	20.0	ND
GSV-028	10.0	ND
GSV-028	20.0	ND
GSV-029	10.0	ND
GSV-029	20.0	ND
GSV-030	10.0	ND
GSV-030	20.0	ND
GSV-031	10.0	ND
GSV-032	10.0	ND
GSV-032	20,0	ND
GSV-033	10.0	ND
GSV-033	20.0	ND
G\$V-035	10.0	17.3
GSV-035	20.0	17.0
GSV-036	10.0	ND
GSV-036	20.0	ND
GSV-037	10.0	ND
GSV-037	20,0	ND
GSV-038	10.0	ND
GSV-038	20.0	1,3
GSV-039	10.0	ND
GSV-039	20.0	2.0
GSV-040	10.0	ND
GSV-040	20.0	ND
GSV-041	10.0	ND
GSV-041	20.0	ND
GSV-042	10.0	1,4
GSV-042	20.0	ND
GSV-043	10.0	14.0
GSV-043	20.0	3.1
GSV-044	10.0	1.1
GSV-044	20.0	1.8
GSV-045	10.0	ND

TABLE 2 Soil Vapor Analytical Results Former Building 360 Complex

Vapor Probe Number	Sample Depth (feet	Total Volatile Organics
<u></u>	below ground surface)	(ug/l in air)
GSV-045	20.0	ND
GSV-046	10,0	ND ND
GSV-046	20.0	2.4
GSV-047	10.0	3.2
GSV-047	20.0	3.8
GSV-047	10,0	4.6
GSV-048	20.0	6.4
GSV-049	10.0	1.3
GSV-049	20.0	1.6
GSV-050	10.0	ND ND
GSV-050	20.0	5.8
GSV-050 GSV-051	10.0	4.7
GSV-051	20.0	6.2
GSV-051		
GSV-052	10.0	ND
	20.0	3.0
GSV-053	10.0	1.4
GSV-053	20.0	4.3
GSV-054	10.0	1.2
GSV-054	20.0	3.3
GSV-055	10.0	2.2
GSV-055	20.0	ND
GSV-056	10.0	1.5
GSV-056	20.0	3.6
GSV-058	10.0	ND
GSV-058	20.0	12.0
GSV-059	10.0	52.3
GSV-059	20.0	22.4
GSV-060	10.0	ND
GSV-060	20.0	1.9
GSV-061	10.0	ND
GSV-061	20.0	ND
GSV-062	10.0	ND
GSV-062	20.0	ND
GSV-063	10.0	ND
GSV-063	20.0	ND
GSV-064	10.0	ND
GSV-064	20.0	2.5
GSV-065	10.0	ND
GSV-065	20.0	7.1
GSV-066	10.0	11.5
GSV-066	20.0	13.0

TABLE 2 Soil Vapor Analytical Results Former Building 360 Complex

Vapor Probe Number	Sample Depth (feet below ground surface)	Total Volatile Organics (ug/l in air)
GSV-067	10.0	37.4
GSV-067	20.0	30,0
G\$V-068	10,0	ND
GSV-068	20.0	ND
GSV-069	10.0	ND
GSV-069	20.0	ND
GSV-070	10.0	ND
GSV-070	20.0	ND
GSV-071	10.0	ND
GSV-071	20.0	ND
GSV-072	10.0	2.9
GSV-072	20.0	ND

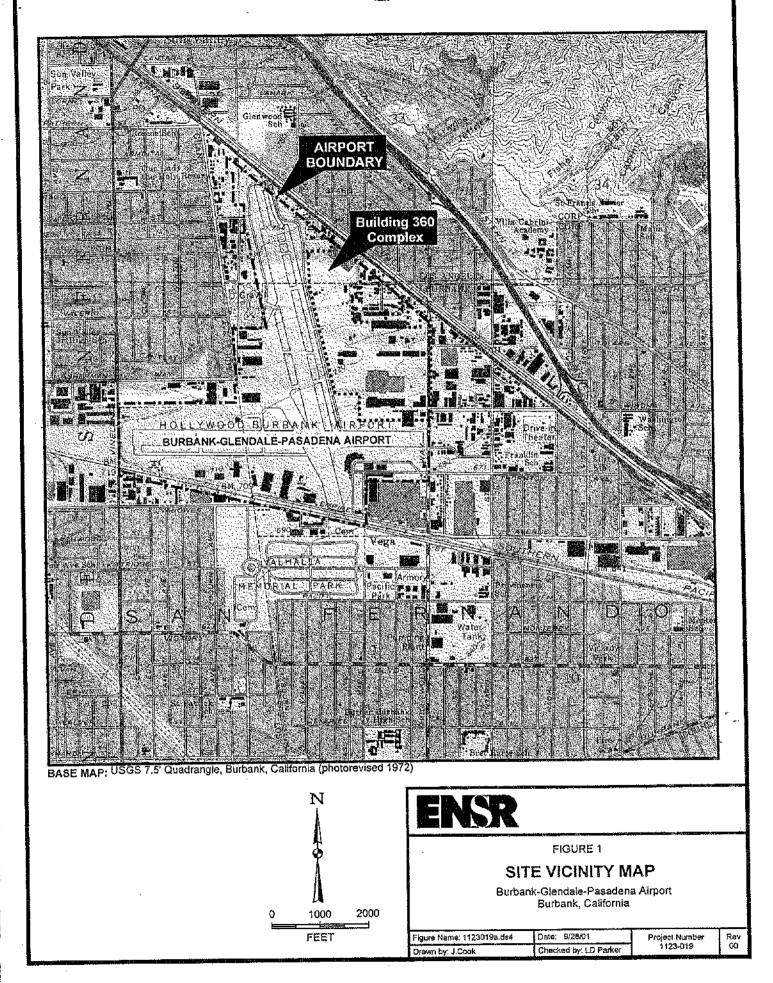


TABLE 2 Soil Vapor Analytical Results Former Building 360 Complex

Vapor Probe Number	Sample Depth (feet below ground surface)	Total Volatile Organics (ug/l in air)
	below ground surface)	(ug/i iii aii)
ASG-001	6.0	ND ND
ASG-002	6.0	ND
ASG-003	6.0	ND
ASG-004	6.0	ND
ASG-005	6.0	ND ND
ASG-006	6.0	ND ND
ASG-007	6.0	ND
ASG-008	6.0	ND
ASG-009	6.0	ND ND
ASG-010	6.0	ND ND
ASG-011	6.0	ND
ASG-012	6.0	ND ND
ASG-013	6.0	ND .
ASG-014	6.0	ND ND
ASG-015	6.0	ND ND
ASG-016	6.0	ND
ASG-017	6.0	ND ND
ASG-018	6.0	ND ND
ASG-019	6.0	ND ND
ASG-020	6.0	ND
ASG-021	6.0	ND ND
ASG-022	6.0	ND ND
ASG-022	6.0	ND
ASG-023	6.0	ND ND
ASG-025	6.0	ND
ASG-025	6.0	ND
ASG-027	6.0	ND ND
ASG-028	6.0	ND ND
ASG-029	6.0	ND ND
ASG-023	6.0	ND ND
ASG-032	6.0	1.3
ASG-033	6.0	1.0
ASG-033	6.0	ND
ASG-035	6.0	ND ND
ASG-035	6.0	ND ND
ASG-030 ASG-037	6.0	ND ND
ASG-037 ASG-038	6.0	ND ND
ASG-039	6.0	
ASG-039 ASG-040	6.0	ND ND
ASG-040 ASG-041		ND ND
AOG-041	6.0	ND

